

Examiner: Hoey
Art unit: 3765
Attorney Docket:blaum 40520

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Stephen Blauer et al

Application: 10/601,949

Filed: 03/23/2003

For: Lightweight protective Clothing and Textile
Material Incorporated Therein
Boston, Massachusetts

Date: 10-31-2005

Document B: Remarks.

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Hon. Commissioner for Patents

The Examiner has advised that Applicant's arguments with respect to claims 8-21 have been considered moot in view of new ground(s) of rejection based on Grilliot, Kocinee and Shannon. Accordingly, the Applicant now has cancelled all rejected claims and submitted new claims 22-30.

New claims 22-30 define the claimed invention in specific terms, which differentiate from the newly applied Grilliot, Kocinee and Shannon references, and which overcome the formal objections previously directed to cancelled claims 1-21.

THE INVENTION

The invention herein is a reversible raincoat (including rain jacket) having a seamed laminate construction, which is windproof and breathable, but which nevertheless provides the light weight, and comfortable hand and feel of a single ply garment. The essence of the invention is a reversible garment that has a robust protective face and an attractive dress face, despite the light weight, and comfortable hand and feel of a single ply garment. The combination of features, i.e. light weight,

single ply, reversible, robust protective face, attractive dress appearance, etc., is the result of all of the following structural elements. The raincoat's two panels are stitched along a seam. The seam is sealed by a tape, which is bonded to and extends along the seam in contact with the contiguous edges of the protective facings of the two panels. With the raincoat in dress mode, the taped seams are concealed at the interior of the raincoat. With the raincoat in work mode, the taped seams are revealed at the exterior of the raincoat. Seams join the arms to the bodice. Seams join front panels of the bodice to a back panel, which spans the back of the raincoat. Seams join the lower portions of the reversely contiguous edges of the single piece goods from which the sleeves are formed. The clothing material comprises a laminate of opposed facing strata and an interstice stratum. The dress facing stratum is a weave. The protective facing is a knit of high luminosity. The interstice stratum is a membrane with high vapor transmission. The dress facing, the interstice, and the protective facing are laminated together by adhesive bonding. The outer surfaces of both facing strata are infused with water repellent polymeric coatings, which, in combination with the microporous membrane, effectively render the fabric water repellent, waterproof and windproof. The seams are sealed at the surface of the protective facings of adjacent panels by a knit tape, which has the same functional and visual characteristics as has the protective. The inner surface of the tape is sealed to its coating by a bonding stratum. The outer surface of the tape has a facing that matches the protective facing of the panels.

Thus, the single ply fabric of the present invention has a multiplicity of features, which interact physically and visually, and all of which have been found to be critical to the physical and visual result. Additional fine details of the invention

include the following specifics: the protective facing, for durability and abrasion resistance, is a light weight nylon or polyester weave, ranging from 2.0 to 4.5 oz. per square yard, weighing approximately 2.18 oz. per square yard, and having a 70 denier warp and a 140 denier filling; the breathable microporous membrane weighs 0.75 oz. to 2.5 oz. per square yard; the protective facing is a high luminosity polyester knit that weighs between 1 oz. and 2.5 oz. per square yard; the laminate ranges in total thickness between 0.2 to 0.9 millimeters and in weight between 5 and 6 ounces per square yard.

THE DIFFERENCES

The Examiner has based the latest rejection primarily on Grilliot in view of Kocinee and Shannon. This rejection contains an exposition of the differences between the prior art and the invention, and makes no mention of the fine details mentioned above.

The Examiner admits that: *** Grilliot fails to teach *** panels having cooperatively joined edges to form a bodice and the bodice including a pair of the panels that span the anterior of the wearer and a back panel that spans the posterior of the wearer *** the panels having reversely joined edges to form a pair of sleeves *** the first pair of stitched seams about the underarms and shoulders of the coat joining the sleeves to the front panels and the back panel *** the second pair of stitched seams along the reversely joined edges of the sleeves and extending from the underarms to the cuffs of the sleeves *** the third pair of stitched seams along the cooperatively joined edges of the bodice *** a tape extending along and sealed to the protective facing across the stitched seams *** the tape and the protective facing having surfaces of the same visual appearance *** the tape and the protective

facing being fluorescent *** the water repellent polymer being fluroethylene *** the first fabric being a weave and the second fabric being a knit.

The Examiner concludes *** It would have been obvious for the jacket of Grilliot to be constructed as is common in the apparel arts *** Firefighters jackets in the apparel arts are known to have front and back panels with sleeve portions that are stitched together along the side seams, shoulder portions and along the sleeves from the underarm to the user's wrist *** (With respect to the water repellent polymer at both the protective and dress facings, being a fluroethylene), *** The polymer being fluroethylene or some other water repellent polymer would create an equivalent structure since *** (any of these would prevent water) from soaking though the coat***, it makes no difference that "the first fabric is a weave and the second fabric is." Here, without citing any motivation in the prior art for his conclusions, the Examiner is basing his conclusions on his own unsupported extertise. But, the Examiner has provided no suggestion of any motivation for combining a firefighting clothing construction with other clothing structure to provide a reversible raincoat formed from a light weight, single ply fabric, alternatively having a robust protective face, and an attractive dress appearance

The Examiner goes on to admit, ***Further, Grilliot and Kocinee fail to teach the polymer or water repellency being polytetrafluoretyhlene. *** The Examiner concludes that, with respect to the water repellent polymer being polytetra-fluroethylene, it would have been obvious to one having ordinary skill in the art to have provided the water repellent material being any that would create water repellency to the garment *** The Examiner rationalizes this conclusion with ***The polymer being polytetrafluroethlyene or some other water repellent polymer would

create an equivalent structure since water would be prevented from soaking through the coat**. Here, again, without citing any motivation in the prior art for his conclusions, the Examiner is basing his conclusions on his own unsupported expertise. But there is no citation of any motivation for combining a firefighting clothing construction with other clothing structure to provide a reversible raincoat formed from a light weight, single ply, alternatively having a robust protective face, and an attractive dress appearance

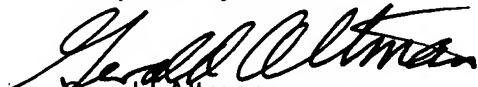
The Examiner acknowledges that "Grilliot and Kocinee fail to teach the front pair of panels having a pair of contiguous borders *** one border of which includes a pair of superposed flaps having a pair of columns of fasteners elements***. The Examiner concludes *** It would have been obvious to have provided the jacket of Grilliot and Kocinee with the reversible closure of Shannon, since the jacket of Grilliot and Kocinee provided with the reversible closure would allow the user to secure the garment closed weather worn on the obverse or reverse preventing the coat from falling off the user. In regard to details of the reversible fasteners, and the other border of which includes a single column of fastener elements ***. Here again, there is no citation of any motivation for combining a firefighting clothing construction with other clothing structure to provide a reversible raincoat formed from a light weight, single ply, alternatively having a robust protective face, and an attractive dress appearance,

ARGUMENT

It is submitted that the relatively rudimentary panels of Grilliot, the relatively massive fire fighting structure of Kocinee, and the inappropriate single column of the loops of Shannon are incongruous. Any such combination has little in common with

the Applicant's elegant laminated single ply dress and protective facings, matching tape and knit sealing, unobtrusive multifunctional snap fasteners, and fluoroethylene adhesive bonding. Although many of the claimed elements, in isolation, may be shown individually in Grilliot, Kocinee and Shannon, there is no teaching in the references regarding how or why there is any non-brute-force basis for combining the disparate elements of these references into a light weight reversible raincoat characterized by single ply ease of use, and capable of being worn in classic dress mode or robust protective mode, despite the elegant simplicity of its construction.

Respectfully submitted



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GA/s
Enclosures